# EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

Permit Numbers 2167 and PSD-TX-985

This table lists the maximum allowable emission caps and individual emission limitations for all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## CONTENTS



## EMISSION CAPS

| Air Contaminant Name (3) | Emission Rates* lb/hr | TPY** |
|---|---|---|
| $NO_x$ through 2004 | 1236.4 | 3607.9 |
| 2005 - 2006 | 1171.5 | 3323.5 |
| 2007 | 511.5 | 1843.6 |
| CO through 2006 | 1259.4 | 2380.0 |
| 2007 | 1376.8 | 2739.1 |
| $SO_2$ through 2006 | 1380.7 | 2911.2 |
| 2007 | 1496.2 | 2215.0 |
| PM through 2006 | 143.6 | 560.7 |
| 2007 | 194.1 | 711.9 |
| VOC through 2006 | 2484.4 | 3342.2 |
| 2007 | 2532.0 | 3524.6 |
| Benzene through 2006 | 149.7 | 54.0 |
| 2007 | 150.5 | 57.6 |
| Ammonia 2002 | 38.8 | 168.0 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR $NO_X$, CO, $SO_2$, PM, VOC, AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| 536-F1A | Atmospheric Tower Heater |
| 536-F1B | Atmospheric Tower Heater |
| 536-F2 | Vacuum Tower Heater |
| 537-HC-1 | Crude Heater No. 1 |
| 537-HV-1 | Vacuum Heater No. 1 |
| 633-PFR | 633 Reactor Feed Heater |
| 633-HR | 633 Fractionator Reboiler |
| 634-HR | 634 Reactor Feed Heater |
| 635-HR | 635 Reactor Feed Heater |
| 636FDHTR | 636 Reactor Feed Heater |
| 636FRHTR | 636 Fractionator Feed Heater |
| 735-HH10 | 735 Reactor Charge Heater |
| 735-HH5 | 735 No. 4 Reactor Heater |
| 735-HH6 | 735 Unifiner Stripper Reboiler |
| 735-HH7 | 735 Stabilizer Heater |
| COK-HE | 736 Coker East Heater H-101A |
| COK-HW | 736 Coker West Heater H-101B |
| 737-HEAT | Heater F001 |
| 737-HEAT | Heater F002 |
| 732-COB | FCCU CO Boiler |
| TGU-ICN | Tail Gas Thermal Oxidizer |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| 533DHN-H1 | 533 H1 Heater |
| 533DHN-H2 | 533 Duotreater Heater |
| 533HT-H102 | 533 Hydrotreater Reactor Heater |
| 534-F5 | Depentanizer Tower Heater |
| 631A-F1 | SR Heater |
| 631B-F2 | LCO Feed Heater |
| 632-F1 | 632 Reactor Feed Heater |
| 632-F2 | 632 LEF Reboiler |
| 732-H1A | 732 East Heater |
| 732-H1B | 732 West Heater |
| 733-B5 | Heater B5 - 733 LEF Reboiler |
| 733-B7 | 733 REF Fractionator Reboiler |
| 735-HH1 | 735 Unifiner Heater |
| 735-HH2 | 735 No. 1 Reactor Heater(A) |
| 735-HH2 | 735 No. 1 Reactor Heater(B) |
| 735-HH3 | 735 No. 2 Reactor Heater(A) |
| 735-HH3 | 735 No. 2 Reactor Heater(B) |
| 735-HH3 | 735 No. 2 Reactor Heater(C) |
| 735-HH3 | 735 No. 2 Reactor Heater(D) |
| 735-HH4 | 735 No. 3 Reactor Heater(A) |
| 735-HH4 | 735 No. 3 Reactor Heater(B) |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR $NO_X$, CO, $SO_2$, PM, VOC, AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TGU-ICN2 | Tail Gas Thermal Oxidizer |
| MVC-ICN | Marine Vapor Combustor |
| FL-3-COK | 736 Coker Flare |
| FL44SRUSO | SRU South Flare |
| FL38 | Merox Flare |
| P-FL-1 | No. 1 Plant Flare |
| P-FL-2 | No. 2 Plant Flare |
| P-FL-3 | No. 3 Plant Flare |
| P-FL-4 | No. 4 Plant Flare |
| P-FL-5 | No. 5 Plant Flare |
| 533-H1 | 533 Atmospheric Tower Heater |
| 533-H2 | 533 Vacuum Tower Heater |
| 637-SHF | 637 SHU/Depent. Feed Heater |
| 637-SHR | 637 SHU/Depent. Feed Reboiler |
| 638-RH | 638 Gasoline HDS Reactor Heater |
| BTU-HF107 | BTU Reformate Stabilizer Reboiler |
| ISOMII-F1 | ISOM II West Reactor Feed Heater |
| ISOMII-F2 | ISOM II Combo Splitter Reboiler |
| ISOMII-F3 | ISOM II Xylene Rerun Tower Reboil |
| 735-HH4 | 735 No. 3 Reactor Heater(C) |
| 735-HH4 | 735 No. 3 Reactor Heater(D) |
| 735-HH4 | 735 No. 3 Reactor Heater(E) |
| 735-HH4 | 735 No. 3 Reactor Heater(F) |
| 735-HH8 | 735 Naphtha Feed Heater |
| 735-HH9 | Naphtha Fractionator Reboiler |
| BTU-HF101 | Btu-Depent Heater |
| BTU-HF102 | HDS Reactor Heater |
| BTU-HF108 | Btu-Reformate Splitter Reboiler |
| BTU-HF111 | Btu-Extract Stripper Reboiler |
| UDEX-H1 | Heartcut Fractionator Heater |
| HOUST-FL | Houston Street Flare |
| 638-FR | 638 Gasoline HDS Stripper Reboiler |
| 639-RH | 639 Diesel HDS Reactor Heater |
| 639-FR | 639 Diesel HDS Stripper Reboiler |
| ISOMII-F5 | ISOM II East Reactor Feed Heater |
| ORTHOI-H1 | Orthoxylene I Heater |
| ORTHOI-H2 | Orthoxylene II Heater |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK011A | EFR Tank No. 11A |
| TK012A | Fixed-Roof Tank No. 12A |
| TK017A | EFR Tank No. 17A |
| TK030A | IFR Tank No. 30A |
| TK414 | EFR Tank No. 414 |
| TK416 | EFR Tank No. 416 |
| TK418 | EFR Tank No. 418 |
| TK422A | Fixed-Roof Tank No. 422A |
| TK423 | EFR Tank No. 423 |
| TK425 | EFR Tank No. 425 |
| TK441 | EFR Tank No. 441 |
| TK442 | EFR Tank No. 442 |
| TK554 | EFR Tank No. 554 |
| TK555 | EFR Tank No. 555 |
| TK556 | EFR Tank No. 556 |
| TK557 | EFR Tank No. 557 |
| TK558 | EFR Tank No. 558 |
| TK559 | EFR Tank No. 559 |
| TK560 | EFR Tank No. 560 |
| TK561 | EFR Tank No. 561 |
| TK562 | EFR Tank No. 562 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK257 | Fixed-Roof Tank No. 257 |
| TK259 | Fixed-Roof Tank No. 259 |
| TK263 | Fixed-Roof Tank No. 263 |
| TK264 | Fixed-Roof Tank No. 264 |
| TK265 | Fixed-Roof Tank No. 265 |
| TK266 | Fixed-Roof Tank No. 266 |
| TK267 | Fixed-Roof Tank No. 267 |
| TK268 | Fixed-Roof Tank No. 268 |
| TK269 | Fixed-Roof Tank No. 269 |
| TK270 | Fixed-Roof Tank No. 270 |
| TK271 | Fixed-Roof Tank No. 271 |
| TK272 | Fixed-Roof Tank No. 272 |
| TK273 | Fixed-Roof Tank No. 273 |
| TK274 | Fixed-Roof Tank No. 274 |
| TK275 | Fixed-Roof Tank No. 275 |
| TK276 | Fixed-Roof Tank No. 276 |
| TK278 | Fixed-Roof Tank No. 278 |
| TK282 | Fixed-Roof Tank No. 282 |
| TK283 | Fixed-Roof Tank No. 283 |
| TK402A | EFR Tank No. 402A |
| TK410 | Fixed-Roof Tank No. 410 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK563 | EFR Tank No. 563 |
| TK564 | EFR Tank No. 564 |
| TK565A | EFR Tank No. 565A |
| TK570 | EFR Tank No. 570 |
| TK571 | Fixed-Roof Tank No. 571 |
| TK572 | Fixed-Roof Tank No. 572 |
| TK573 | EFR Tank No. 573 |
| TK574 | Fixed-Roof Tank No. 574 |
| TK576 | EFR Tank No. 576 |
| TK577 | EFR Tank No. 577 |
| TK578 | EFR Tank No. 578 |
| TK579 | EFR Tank No. 579 |
| TK583 | EFR Tank No. 583 |
| TK584 | EFR Tank No. 584 |
| TK594 | EFR Tank No. 594 |
| TK597A | EFR Tank No. 597A |
| TK599A | EFR Tank No. 599A |
| TK600 | EFR Tank No. 600 |
| TK601 | Fixed-Roof Tank No. 601 |
| TK604 | Fixed-Roof Tank No. 604 |
| TK607 | Fixed-Roof Tank No. 607 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK412A | IFR Tank No. 412A |
| TK420A | EFR Tank No. 420A |
| TK424A | EFR Tank No. 424A |
| TK445 | Fixed-Roof Tank No. 445 |
| TK446 | Fixed-Roof Tank No. 446 |
| TK476 | EFR Tank No. 476 |
| TK477 | EFR Tank No. 477 |
| TK509 | Fixed-Roof Tank No. 509 |
| TK541 | Fixed-Roof Tank No. 541 |
| TK543 | Fixed-Roof Tank No. 543 |
| TK553 | Fixed-Roof Tank No. 553 |
| TK580 | EFR Tank No. 580 |
| TK581 | EFR Tank No. 581 |
| TK582 | EFR Tank No. 582 |
| TK590 | EFR Tank No. 590 |
| TK591 | EFR Tank No. 591 |
| TK598 | EFR Tank No. 598 |
| TK609A | Fixed-Roof Tank No. 609A |
| TK633 | Fixed-Roof Tank No. 633 |
| TK647 | Fixed-Roof Tank No. 647 |
| TK649 | Fixed-Roof Tank No. 649 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK613A | IFR Tank No. 613A |
| TK618 | EFR Tank No. 618 |
| TK619A | EFR Tank No. 619A |
| TK674 | EFR Tank No. 674 |
| TK687 | IFR Tank No. 687 |
| TK693 | IFR Tank No. 693 |
| TK694 | IFR Tank No. 694 |
| TK774 | EFR Tank No. 774 |
| TK775 | EFR Tank No. 775 |
| TK776 | EFR Tank No. 776 |
| TK777 | EFR Tank No. 777 |
| TK793 | EFR Tank No. 793 |
| TK797 | EFR Tank No. 797 |
| TK801 | Fixed-Roof Tank No. 801 |
| TK802 | EFR Tank No. 802 |
| TK803 | EFR Tank No. 803 |
| TK804 | EFR Tank No. 804 |
| TK805 | EFR Tank No. 805 |
| TK806 | EFR Tank No. 806 |
| TK807 | EFR Tank No. 807 |
| TK808 | EFR Tank No. 808 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK650 | Fixed-Roof Tank No. 650 |
| TK651 | Fixed-Roof Tank No. 651 |
| TK652 | Fixed-Roof Tank No. 652 |
| TK653 | Fixed-Roof Tank No. 653 |
| TK654 | Fixed-Roof Tank No. 654 |
| TK655 | Fixed-Roof Tank No. 655 |
| TK656 | Fixed-Roof Tank No. 656 |
| TK657 | Fixed-Roof Tank No. 657 |
| TK658 | Fixed-Roof Tank No. 658 |
| TK659 | Fixed-Roof Tank No. 659 |
| TK660 | Fixed-Roof Tank No. 660 |
| TK661 | Fixed-Roof Tank No. 661 |
| TK662 | Fixed-Roof Tank No. 662 |
| TK663 | Fixed-Roof Tank No. 663 |
| TK664 | Fixed-Roof Tank No. 664 |
| TK665 | Fixed-Roof Tank No. 665 |
| TK666 | Fixed-Roof Tank No. 666 |
| TK667 | IFR Tank No. 667 |
| TK668 | IFR Tank No. 668 |
| TK669 | IFR Tank No. 669 |
| TK670 | IFR Tank No. 670 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK809 | EFR Tank No. 809 |
| TK810 | EFR Tank No. 810 |
| TK811 | EFR Tank No. 811 |
| TK813 | Fixed-Roof Tank No. 813 |
| TK814 | Fixed-Roof Tank No. 814 |
| TK816 | IFR Tank No. 816 |
| TK817 | EFR Tank No. 817 |
| TK834A | IFR Tank No. 834A |
| TK835 | EFR Tank No. 835 |
| TK838 | EFR Tank No. 838 |
| TK850 | EFR Tank No. 850 |
| TK854 | IFR Tank No. 854 |
| TK855 | IFR Tank No. 855 |
| TK861 | IFR Tank No. 861 |
| TK865 | IFR Tank No. 865 |
| TK867 | IFR Tank No. 867 |
| TK868 | IFR Tank No. 868 |
| TK869 | IFR Tank No. 869 |
| TK870 | Fixed-Roof Tank No. 870 |
| TK871 | Fixed-Roof Tank No. 871 |
| TK872 | IFR Tank No. 872 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK671 | Fixed-Roof Tank No. 671 |
| TK672 | IFR Tank No. 672 |
| TK673 | IFR Tank No. 673 |
| TK675 | Fixed-Roof Tank No. 675 |
| TK677 | IFR Tank No. 677 |
| TK685 | IFR Tank No. 685 |
| TK686 | IFR Tank No. 686 |
| TK688 | IFR Tank No. 688 |
| TK689 | IFR Tank No. 689 |
| TK690 | IFR Tank No. 690 |
| TK691 | IFR Tank No. 691 |
| TK692 | IFR Tank No. 692 |
| TK697 | Fixed-Roof Tank No. 697 |
| TK698 | Fixed-Roof Tank No. 698 |
| TK699 | Fixed-Roof Tank No. 699 |
| TK700 | Fixed-Roof Tank No. 700 |
| TK724 | Fixed-Roof Tank No. 724 |
| TK726 | Fixed-Roof Tank No. 726 |
| TK729 | Fixed-Roof Tank No. 729 |
| TK732 | Fixed-Roof Tank No. 732 |
| TK744 | Fixed-Roof Tank No. 744 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK873 | IFR Tank No. 873 |
| TK874 | IFR Tank No. 874 |
| TK875 | IFR Tank No. 875 |
| TK876 | IFR Tank No. 876 |
| TK878 | IFR Tank No. 878 |
| TK879 | IFR Tank No. 879 |
| TK880 | IFR Tank No. 880 |
| TK881 | IFR Tank No. 881 |
| TK882 | IFR Tank No. 882 |
| TK883 | IFR Tank No. 883 |
| TK884 | IFR Tank No. 884 |
| TK885 | EFR Tank No. 885 |
| TK886 | EFR Tank No. 886 |
| TK887 | EFR Tank No. 887 |
| TK888 | EFR Tank No. 888 |
| TK890 | EFR Tank No. 890 |
| TK891 | Fixed-Roof Tank No. 891 |
| TK892 | EFR Tank No. 892 |
| TK893 | EFR Tank No. 893 |
| TK897 | Fixed-Roof Tank No. 897 |
| TK911 | Fixed-Roof Tank No. 911 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK747 | Fixed-Roof Tank No. 747 |
| TK759 | Fixed-Roof Tank No. 759 |
| TK760 | Fixed-Roof Tank No. 760 |
| TK762 | Fixed-Roof Tank No. 762 |
| TK763 | Fixed-Roof Tank No. 763 |
| TK764 | Fixed-Roof Tank No. 764 |
| TK765 | Fixed-Roof Tank No. 765 |
| TK767 | Fixed-Roof Tank No. 767 |
| TK768 | Fixed-Roof Tank No. 768 |
| TK769 | Fixed-Roof Tank No. 769 |
| TK771 | Fixed-Roof Tank No. 771 |
| TK772 | Fixed-Roof Tank No. 772 |
| TK778 | Fixed-Roof Tank No. 778 |
| TK779 | Fixed-Roof Tank No. 779 |
| TK780 | Fixed-Roof Tank No. 780 |
| TK781 | Fixed-Roof Tank No. 781 |
| TK782 | Fixed-Roof Tank No. 782 |
| TK783 | Fixed-Roof Tank No. 783 |
| TK784 | Fixed-Roof Tank No. 784 |
| TK785 | Fixed-Roof Tank No. 785 |
| TK786 | Fixed-Roof Tank No. 786 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK920 | IFR Tank No. 920 |
| TK921 | EFR Tank No. 921 |
| TK922 | EFR Tank No. 922 |
| TK001A | Fixed-Roof Tank No. 1A |
| T-1 | Fixed-Roof Tank No. T-1 |
| TK006A | EFR Tank No. 6A |
| TK026A | EFR Tank No. 26A |
| TK027A | Fixed-Roof Tank No. 27A |
| TK069 | Fixed-Roof Tank No. 69 |
| TK070 | Fixed-Roof Tank No. 70 |
| TK071 | Fixed-Roof Tank No. 71 |
| TK073 | Fixed-Roof Tank No. 73 |
| TK078A | Fixed-Roof Tank No. 78A |
| TK081 | Fixed-Roof Tank No. 81 |
| TK082 | Fixed-Roof Tank No. 82 |
| TK084 | Fixed-Roof Tank No. 84 |
| TK085 | Fixed-Roof Tank No. 85 |
| TK091 | Fixed-Roof Tank No. 91 |
| TK092 | Fixed-Roof Tank No. 92 |
| TK093 | Fixed-Roof Tank No. 93 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK787 | Fixed-Roof Tank No. 787 |
| TK788 | Fixed-Roof Tank No. 788 |
| TK789 | Fixed-Roof Tank No. 789 |
| TK790 | EFR Tank No. 790 |
| TK791 | EFR Tank No. 791 |
| TK792 | Fixed-Roof Tank No. 792 |
| TK793 | EFR Tank No. 793 |
| TK794 | EFR Tank No. 794 |
| TK795 | EFR Tank No. 795 |
| TK796 | EFR Tank No. 796 |
| TK798 | EFR Tank No. 798 |
| TK799 | EFR Tank No. 799 |
| TK800 | EFR Tank No. 800 |
| TK812 | Fixed-Roof Tank No. 812 |
| TK815 | IFR Tank No. 815 |
| TK818 | EFR Tank No. 818 |
| TK819 | EFR Tank No. 819 |
| TK821 | IFR Tank No. 821 |
| TK822 | IFR Tank No. 822 |
| TK825 | Fixed-Roof Tank No. 825 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK095 | Fixed-Roof Tank No. 95 |
| TK096 | Fixed-Roof Tank No. 96 |
| TK097 | Fixed-Roof Tank No. 97 |
| TK098 | Fixed-Roof Tank No. 98 |
| TK099 | Fixed-Roof Tank No. 99 |
| TK110 | Fixed-Roof Tank No. 110 |
| TK111 | Fixed-Roof Tank No. 111 |
| TK112 | Fixed-Roof Tank No. 112 |
| TK113 | Fixed-Roof Tank No. 113 |
| TK114 | Fixed-Roof Tank No. 114 |
| TK115 | Fixed-Roof Tank No. 115 |
| TK116 | Fixed-Roof Tank No. 116 |
| TK117 | Fixed-Roof Tank No. 117 |
| TK118 | Fixed-Roof Tank No. 118 |
| TK119 | Fixed-Roof Tank No. 119 |
| TK137 | Fixed-Roof Tank No. 137 |
| TK138 | Fixed-Roof Tank No. 138 |
| TK139 | Fixed-Roof Tank No. 139 |
| TK140 | Fixed-Roof Tank No. 140 |
| TK163 | Fixed-Roof Tank No. 163 |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK826 | Fixed-Roof Tank No. 826 |
| TK827 | Fixed-Roof Tank No. 827 |
| TK836 | Fixed-Roof Tank No. 836 |
| TK839 | Fixed-Roof Tank No. 839 |
| TK841 | Fixed-Roof Tank No. 841 |
| TK842 | Fixed-Roof Tank No. 842 |
| TK843 | Fixed-Roof Tank No. 843 |
| TK851 | Fixed-Roof Tank No. 851 |
| TK852 | Fixed-Roof Tank No. 852 |
| TK856 | Fixed-Roof Tank No. 856 |
| TK857 | Fixed-Roof Tank No. 857 |
| TK860 | Fixed-Roof Tank No. 860 |
| TK862 | Fixed-Roof Tank No. 862 |
| TK863 | Fixed-Roof Tank No. 863 |
| TK866A | Fixed-Roof Tank No. 866A |
| TK894 | Fixed-Roof Tank No. 894 |
| TK895 | Fixed-Roof Tank No. 895 |
| TK896 | Fixed-Roof Tank No. 896 |
| TK898 | Fixed-Roof Tank No. 898 |
| TK901 | Horizontal Tank No. 901 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK164 | Fixed-Roof Tank No. 164 |
| TK165 | Fixed-Roof Tank No. 165 |
| TK166 | Fixed-Roof Tank No. 166 |
| TK167 | Fixed-Roof Tank No. 167 |
| TK168 | Fixed-Roof Tank No. 168 |
| TK169 | Fixed-Roof Tank No. 169 |
| TK170 | Fixed-Roof Tank No. 170 |
| TK171 | Fixed-Roof Tank No. 171 |
| TK172 | Fixed-Roof Tank No. 172 |
| TK176 | Fixed-Roof Tank No. 176 |
| TK180 | Fixed-Roof Tank No. 180 |
| TK181 | Fixed-Roof Tank No. 181 |
| TK182 | Fixed-Roof Tank No. 182 |
| TK183 | Fixed-Roof Tank No. 183 |
| TK193 | Fixed-Roof Tank No. 193 |
| TK194 | Fixed-Roof Tank No. 194 |
| TK195 | Fixed-Roof Tank No. 195 |
| TK200 | Fixed-Roof Tank No. 200 |
| TK201 | Fixed-Roof Tank No. 201 |
| TK202 | Fixed-Roof Tank No. 202 |
| TK902 | Horizontal Tank No. 902 |
| TK7601 | Fixed-Roof Tank No. 7601 |
| TK7701 | Fixed-Roof Tank No. 7701 |
| 533-CT | 533 Cooling Tower |
| 534-CT | 534 Cooling Tower |
| 537-N | 535 New Cooling Tower |
| 537-O | 535 Old Cooling Tower |
| 536-CT | 536 Cooling Tower |
| 732-CT | 732 Cooling Tower |
| 537-X | 733 Cooling Tower (2 north cells) |
| 733-CT | 733 Cooling Tower |
| 735-CT | 735 Cooling Tower |
| ARU-CT | ARU Cooling Tower |
| BRU-CT | BRU Cooling Tower |
| FCT-COKE | Coker Cooling Tower (736) |
| 737-CT | Coker Cooling Tower (737) |
| SRU-CT | SRU Cooling Tower (439 TGU) |
| LCT-SULF | SRU Cooling Tower (439 Claus) |
| FU-SEWER | Wastewater collection system |
| FU-API | API Separator |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES INCLUDED IN EMISSION CAPS FOR VOC AND BENZENE (3)

| Emission Point No. (1) | Source Name (2) |
|---|---|
| TK203 | Fixed-Roof Tank No. 203 |
| TK204 | Fixed-Roof Tank No. 204 |
| TK244 | Fixed-Roof Tank No. 244 |
| TK247 | Fixed-Roof Tank No. 247 |
| 533-H1 | 533 Atmospheric Tower Heater |
| 534-F5 | Depentanizer Tower Heater |
| 536-F1A | Atmospheric Tower Heater |
| 536-F1B | Atmospheric Tower Heater |
| 536-F2 | Vacuum Tower Heater |
| 537-HC-1 | Crude Heater No. 1 |
| 537-HV-1 | Vacuum Heater No. 1 |
| 633-PFR | 633 Reactor Feed Heater |
| 633-HR | 633 Fractionator Reboiler |
| 634-HR | 634 Reactor Feed Heater |
| 635-HR | 635 Reactor Feed Heater |
| 636FDHTR | 636 Reactor Feed Heater |
| 636FRHTR | 636 Fractionator Feed Heater |
| 732-H1A | 732 East Heater |
| 732-H1B | 732 West Heater |
| 733-B5 | Heater B5 - 733 LEF Reboiler |

| Emission Point No. (1) | Source Name (2) |
|---|---|
| FU-EQSUMP | EQ Sump |
| FU-GCLS | GCWDA Lift Station |
| FUGITIVE | Tank Truck/Railcar Loading |
| FUGITIVES | Process Fugitives |
| 735-HH3 | 735 No. 2 Reactor Heater(C) |
| 735-HH3 | 735 No. 2 Reactor Heater(D) |
| 735-HH4 | 735 No. 3 Reactor Heater(A) |
| 735-HH4 | 735 No. 3 Reactor Heater(B) |
| 735-HH4 | 735 No. 3 Reactor Heater(C) |
| 735-HH4 | 735 No. 3 Reactor Heater(D) |
| 735-HH4 | 735 No. 3 Reactor Heater(E) |
| 735-HH4 | 735 No. 3 Reactor Heater(F) |
| 735-HH5 | 735 No. 4 Reactor Heater |
| 735-HH6 | 735 Unifiner Stripper Reboiler |
| 735-HH7 | 735 Stabilizer Heater |
| 735-HH8 | 735 Naphtha Feed Heater |
| 735-HH9 | Naphtha Fractionator Reboiler |
| 735-HH10 | 735 Reactor Charge Heater |
| 737-HEAT | Heater F001 |
| 737-HEAT | Heater F002 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES NOT INCLUDED IN EMISSION CAPS - INDIVIDUAL EMISSION LIMITATIONS

| | | AIR CONTAMINANTS DATA | | | |
|---|---|---|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | | Emission Rates* lb/hr | TPY** |
| 733-B7 | 733 REF Fractionator Reboiler | BTU-HF101 | Btu-Depent Heater | | |
| 735-HH1 | 735 Unifiner Heater | BTU-HF102 | HDS Reactor Heater | | |
| 735-HH2 | 735 No. 1 Reactor Heater | BTU-HF108 | Btu-Reformate Splitter Reboiler | | |
| 735-HH3 | 735 No. 2 Reactor Heater(A) | BTU-HF111 | Btu-Extract Stripper Reboiler | | |
| 735-HH3 | 735 No. 2 Reactor Heater(B) | COK-HE | 736 Coker East Heater H-101A | | |
| 633-FUG | 633 DHT Fugitives | COK-HW | 736 Coker West Heater H-101B | | |
| TK921 | Sour Water Tank | UDEX-H1 | Heartcut Fractionator Heater | | |
| TK922 | Sour Water Tank | SRU-FE | Sulfur Plant Fugitives | | |
| TK2163 | Anhydrous Ammonia Tank | SWS-FE | Sour Water System Fugitives | | |
| 637-SHF | 637 SHU/Depent. Feed Heater | FU66HDS | 636 Fugitives | | |
| 637-SHR | 637 SHU/Depent. Feed Reboiler | FU-SCR | SCR Equipment - Ammonia | | |
| 638-RH | 638 Gasoline HDS Reactor Heater | 638-FR | 638 Gasoline HDS Stripper Reboiler | | |
| 639-FR | 639 Diesel HDS Stripper Reboiler | 639-RH | 639 Diesel HDS Reactor Heater | | |

SOURCES INCLUDED IN EMISSION CAPS FOR PM ONLY (3)

| | | | |
|---|---|---|---|
| COK-LL | Coke Loading Fugitives (4) | 737-CL | Coke Loading Fugitives (4) |
| 737-CP | Coke Pit | | |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES NOT INCLUDED IN EMISSION CAPS - INDIVIDUAL EMISSION LIMITATIONS

| | | AIR CONTAMINANTS DATA | | |
|---|---|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates* lb/hr | TPY** |
| ENG-AIR1 through ENG-AIR5 | Totals for Backup Air Compressor Engines 1-5 (5)(8) | $NO_x$ | 33.94 | 67.89 |
| | | CO | 4.26 | 8.51 |
| | | $SO_2$ | 4.72 | 9.43 |
| | | PM | 0.56 | 1.11 |
| | | VOC | 1.06 | 2.13 |
| 633-FUG | 633 DHT Fugitives (4) | $H_2S$ | 0.01 | 0.03 |
| TGU-ICN | Tail Gas Thermal Oxidizer | $H_2S$ | 0.06 | — |
| TGU-ICN2 | Tail Gas Thermal Oxidizer | $H_2S$ | 0.06 | — |
| Total TGU-ICN plus TGU-ICN2 | | | — | 0.28 |
| LL19DOCKD | Barge Loading | $H_2S$ | 7.79 | 3.26 |
| LL11TT | Tank Truck Loading | $H_2S$ | 3.19 | 2.50 |
| TK921 | Sour Water Tank | $H_2S$ | 0.04 | 0.11 |
| TK922 | Sour Water Tank | $H_2S$ | 0.04 | 0.11 |
| TK870 | Molten Sulfur Storage Tank | $H_2S$ | <0.001 | <0.001 |
| TK871 | Molten Sulfur Storage Tank | $H_2S$ | <0.001 | <0.001 |
| VES202 | Sulfuric Acid Storage Tank | $H_2SO_4$ | <0.001 | <0.001 |
| VES203 | Sulfuric Acid Storage Tank | $H_2SO_4$ | <0.001 | <0.001 |
| SRU-FE | Sulfur Plant Fugitives (4) | $H_2S$ | 0.51 | 2.22 |
| SRU-FE | Sulfur Plant Fugitives (4) | COS | <0.01 | <0.01 |
| SRU-FE | Sulfur Plant Fugitives (4) | $CS_2$ | <0.01 | <0.01 |
| SWS-FE | Sour Water System Fugitives (4) | $H_2S$ | <0.01 | <0.01 |
| 1415-FE | Amine Treating Units No. 14 and 15 Fugitives (4) | $H_2S$ | 0.23 | 0.99 |
| AMINE-FE | New Amine Treating Unit Fugitives (4) | $H_2S$ | 0.11 | 0.49 |
| 50TN-FE | 50-Ton Amine Treating Unit Fugitives (4) | $H_2S$ | 0.15 | 0.66 |
| 100TN-FE | 100-Ton Amine Treating Unit Fugitives (4) | $H_2S$ | <0.01 | <0.01 |

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

SOURCES NOT INCLUDED IN EMISSION CAPS - INDIVIDUAL EMISSION LIMITATIONS

| | | AIR CONTAMINANTS DATA | | |
|---|---|---|---|---|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates* lb/hr | TPY** |
| 732-COB | FCCU CO Boiler Wet Gas Scrubber | Antimony | 0.02 | 0.10 |
| 737-FUG | Fugitives (4) | $H_2S$ | 0.02 | 0.08 |
| FU66HDS | 636 Fugitives (4) | $H_2S$ | 0.01 | 0.05 |
| 537-FUG | Fugitives (4) | $H_2S$ | <0.01 | 0.01 |
| TK599A | Tank 599A (9) | $H_2S$ | 0.37 | 1.61 |
| TK885 | Tank 885 (9) | $H_2S$ | 0.37 | 1.58 |
| TK886 | Tank 886 (9) | $H_2S$ | 0.37 | 1.58 |
| TK887 | Tank 887 (9) | $H_2S$ | 0.37 | 1.58 |
| TK888 | Tank 888 (9) | $H_2S$ | 0.37 | 1.58 |
| FE | Crude Oil Fugitives (9) | $H_2S$ | 0.02 | 0.09 |
| FL-3-COK | 736 Coker Flare | $H_2S$ | <0.01 | <0.01 |
| P-FL-1 | No. 1 Plant Flare | $SO_3$ | 0.04 | 0.02 |
| P-FL-1 | No. 1 Plant Flare | $H_2S$ | 3.95 | 2.0 |
| FL38 | Merox Flare | $H_2S$ | <0.01 | <0.01 |
| P-FL-2 | No. 2 Plant Flare | $H_2S$ | 1.99 | 2.17 |
| P-FL-3 | No. 3 Plant Flare | $H_2S$ | 0.03 | 0.02 |
| P-FL-4 | No. 4 Plant Flare | $H_2S$ | <0.01 | <0.01 |
| HOUST-FL | Houston Street Flare | $H_2S$ | <0.01 | <0.01 |

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.

EMISSION SOURCES - EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

(3) $NO_x$ - nitrogen oxide
CO - carbon monoxide
$SO_2$ - sulfur dioxide
PM - particulate matter, suspended in the atmosphere, including $PM_{10}$
$PM_{10}$ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
$H_2S$ - hydrogen sulfide
$H_2SO_4$- sulfuric acid
COS - carbon sulfide
$CS_2$ - carbon disulfide
$SO_3$ - sulfur trioxide

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) These facilities shall be shut down according to the shutdown facilities section of the special conditions.

(6) Initial - prior to installation of Selective Catalytic Reduction (SCR).

(7) Final - after installation of SCR.

(8) Total operating time for all five compressor engines shall not exceed 20,000 hours per rolling 12-month period.

(9) $H_2S$ emissions from crude oil are an estimate only and should not be considered as a maximum allowable emission rate. However, at no time shall the emissions cause a nuisance condition.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

8,760 Hrs/year

** Compliance with annual emission caps and annual individual emission limitations is based on a rolling 12-month period. Compliance with emission caps during calendar years in which the cap changes shall be determined accordingly.

Dated December 21, 2005